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Department of Health Services
S. Kimberly Belshé, Director

California Morbidity

State of California
Pete Wilson, Governor

Recommendations for the Prevention and Control of Influenza Outbreaks in California Long-Term Care Facilities

In January 1998, recommendations for the prevention and control of influenza outbreaks in California long-term care facilities were developed by the Department of Health Services (DHS), Division of Communicable Disease Control, using information from the federal Centers for Disease Control and Prevention and after consulting with the State Licensing and Certification Program. These were distributed by the Licensing and Certification Program to long-term care facilities throughout the State, in anticipation of possible outbreaks during the 1997-98 influenza season. Although influenza activity was heavier than in recent years, few outbreaks were reported in California long-term care facilities (in contrast to other states that reported nursing home outbreaks). The purpose of this note is to review DHS' recommendations and to make their availability known. The recommendations may be revised based on new information regarding the 1998-99 influenza season.

Influenza and Nursing Homes

Influenza typically occurs annually in the winter, between October and April; peak activity in a community usually lasts from 6 to 8 weeks, historically spanning the New Year period. Influenza is a particularly serious problem in nursing homes. Because of their age and health problems, nursing home residents are at high risk of developing serious complications or dying when they get influenza. They may also be at high risk of exposure to influenza since the virus spreads more easily in environments where people live close to each other. Once the virus enters a nursing home, it can spread rapidly. During nursing home outbreaks, more than half of the residents may be infected. When feasible, measures should be taken to reduce contact between symptomatic and asymptomatic persons during outbreaks. In addition, chemoprophylaxis with rimantadine or amantadine should be considered during influenza A outbreaks in nursing homes. These drugs can reduce the severity and shorten the duration of influenza A illness when treatment is initiated within 48 hours of illness onset.

Nursing homes should have a system for monitoring the incidence of respiratory illness with fever among residents and staff. For this purpose, influenza-like illness is often defined as fever higher than 99.8 F (37.6 C) orally or 100.8 F (38.2 C) rectally (although fever may be minimal or absent in some) and at least one of the following: cough, sore throat or "cold" symptoms (such as nasal congestion). An outbreak is designated when the incidence exceeds that which is expected. Since early detection of outbreaks of influenza is so important and assistance in the diagnosis of influenza may be needed, nursing homes should consider notifying local health departments when 2-3 or more cases of influenza-like illness occur in residents or staff within a week.

Vaccination of persons at high risk for complications of influenza is the most effective measure for reducing the illness and deaths from influenza and should be done each year before the influenza season. When over 60% of residents of a long-term care facility are vaccinated, the risk of outbreaks is reduced (herd immunity). Vaccination should be routinely provided to all residents of nursing homes with the agreement of attending physicians, rather than by obtaining individual vaccination orders for each resident. Consent for vaccination should be obtained from the resident or a family member at the time of admission to the facility, and all residents and staff should be vaccinated in the fall. Residents admitted during the winter months should be vaccinated when they are admitted. Vaccination of staff may be more effective than vaccinating residents at preventing resident morbidity and mortality, and will save money from reduced lost work time due to respiratory illness.

The recommendations for management of influenza outbreaks are included below. Additional information on the use of antiviral agents, including adverse reactions and the development of resistance is available in the complete recommendations, available upon request from the Division of Communicable Disease Control, as described at the end of this note.

Recommendations for Control of Influenza Outbreaks

A. Determination of the Outbreak Strain
   Early in the outbreak, obtain nasopharyngeal-swab or nasal-wash specimens from patients with symptoms suggestive of influenza for influenza virus culture or antigen detection.
B. Vaccination of Patients and Personnel
   Administer current influenza vaccine to unvaccinated patients and staff, especially if the outbreak occurs early in the influenza season.
C. Amantadine or Rimantadine Administration (new antiviral agents may also become available)
   1. When an outbreak of influenza A is suspected or recognized:
      a. Administer amantadine or rimantadine as prophylaxis to all uninfected patients in the involved unit for whom it is not contraindicated. Do not delay administration of amantadine or rimantadine unless the results of diagnostic tests to identify the infecting strain(s) - i.e., type A or type B influenza - can be obtained within 12 to 24 hours after specimen collection.
      b. Administer amantadine or rimantadine for prophylaxis to unvaccinated staff members for whom it is not medically contraindicated who are in the involved unit or taking care of high-risk patients.
   2. Discontinue amantadine or rimantadine if laboratory tests confirm or strongly suggest that influenza type A is <u>not</u> the cause of the outbreak.
   3. If the cause of the outbreak is confirmed or believed to be influenza type A AND vaccine has been administered only recently to susceptible patients and personnel, continue amantadine or rimantadine prophylaxis until 2 weeks after the vaccination.
   4. To the extent possible, do not allow contact between those at high risk of complications from influenza and patients or staff who are taking amantadine or rimantadine for treatment of acute respiratory illness; prevent contact during treatment and for two days after the latter discontinue treatment.
D. Interruption of (Person-to-Person) Transmission
   1. Keep patients known or suspected to have influenza in a private room or in a room with other patients with proven influenza unless there are medical contraindications.
   2. As much as feasible, place together persons with influenza-like illness in an area with an independent air supply and exhaust system.
   3. Institute masking of individuals who enter the room of a patient with influenza.
   4. As much as possible during periods of influenza activity in the community, remove patient-care staff who have symptoms of febrile respiratory tract infection suggestive of influenza from duties that involve direct patient contact until symptoms resolve.
   5. When outbreaks are characterized by high attack rates and severe illness:
      a. Restrict visitors who have a febrile respiratory illness.
      b. Curtail or temporarily close facilities to new admissions as necessary.

The Department of Health Services encourages infection control committees of long-term care facilities to review these recommendations. Questions regarding the use of antiviral agents should be directed to Jon Rosenberg, M.D., Division of Communicable Disease Control at (510) 540-2566. Questions regarding infection control issues should be directed to Chris Cahill, Licensing and Certification, at (916) 327-4330. Written comments about the information contained in these recommendations should be addressed to Chris Cahill, Infection Control Consultant, Department of Health Services, Licensing and Certification, 1800 3rd Street, Suite 210, PO Box 942732, Sacramento, CA 94234-7320. For complete copies of the recommendations, write to Division of Communicable Disease Control, Department of Health Services, 2151 Berkeley Way, Room 708, Berkeley, CA 94704-1011, or call (510) 540-2566.

Reported by. Jon Rosenberg, M.D., Disease Investigations Section, Disease Investigations and Surveillance Branch, Division of Communicable Disease Control, California Department of Health Services.